

# Work Order ID 150070

Monday, August 29, 2016 9:18:01 AM

\*150070\*

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Item ID: D2622-120C Accept \*N9000040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Step Extrusion  
 Start Date: 8/26/2016 Start Qty: 120.00 \*120\* Cust Item ID:  
 Required Date: 9/15/2016 Req'd Qty: 120.00 \*120\* Customer:

## Reference:

Approvals: Process Plan: DAS 13 9-89 Date: AUG 29 2016 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_  
 Run Start \*NR1\*  
 Stop \*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

| Draw Nbr | Revision Nbr |
|----------|--------------|
| D2622    | Rev C1       |

|            |                                                                                                                                                                                                                                                                 |      |  |  |  |            |                    |                    |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--|--|--|------------|--------------------|--------------------|
| 100        | PURCHASING                                                                                                                                                                                                                                                      | 0.00 |  |  |  | <u>120</u> | <u>AUG 31 2016</u> | <u>DAS 13 9-89</u> |
| *100*      |                                                                                                                                                                                                                                                                 |      |  |  |  |            |                    |                    |
| Purchasing | Memo                                                                                                                                                                                                                                                            | 0.00 |  |  |  |            |                    |                    |
| Purchasing | Issue P/O: <u>33497</u> a) Extrude as per Dwg D2622 Rev. Cb)<br>Material: 6061-T6 (QQ-A-200/8)c) Minimum yield tensile strength = 35<br>ksid) Minimum ultimate tensile strength = 38 ksi e) Minimum elongation =<br>8%f) Order at 120" longg) Bon L Canada Inc. |      |  |  |  |            |                    |                    |

|           |                                            |      |  |  |  |             |                |             |
|-----------|--------------------------------------------|------|--|--|--|-------------|----------------|-------------|
| 110       | Receive & Inspect for Damage & Mat'l Certs | 0.00 |  |  |  | <u>119x</u> | <u>8/16/16</u> | <u>10-3</u> |
| *110*     |                                            |      |  |  |  |             |                |             |
| Packaging | Memo                                       | 0.40 |  |  |  |             |                |             |
| Packaging | Ensure material certification is attached  |      |  |  |  |             |                |             |

|                 |                                                                                                  |      |  |  |  |            |                |             |
|-----------------|--------------------------------------------------------------------------------------------------|------|--|--|--|------------|----------------|-------------|
| 120             | QC18 In-Coming Inspection Material                                                               | 0.00 |  |  |  | <u>119</u> | <u>8/16/16</u> | <u>10-3</u> |
| *120*           |                                                                                                  |      |  |  |  |            |                |             |
| QC              | Memo                                                                                             | 0.00 |  |  |  |            |                |             |
| Quality Control | Check Pull test per Dwg D2622 for compliance page attached Check hardness<br>with Webster tester |      |  |  |  |            |                |             |

5  
8/16/16  
 \*Pull QM v20 p45 For inspection\*

**Work Order ID 150070****\*150070\***

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Monday, August 29, 2016 9:18:01 AM

Item ID: D2622-120C Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: Stop **\*NS2\***  
Item Name: Step Extrusion  
Start Date: 8/26/2016 Start Qty: 120.00 **\*120\*** Cust Item ID:  
Required Date: 9/15/2016 Req'd Qty: 120.00 **\*120\*** Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                         | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 130                            | Identify as per dwg & Stock Location: <u>WAB</u> | 0.00                 |         |        |              |               |               |                  |                |
| <b>*130*</b>                   |                                                  |                      |         |        |              |               |               |                  |                |
| Packaging                      | Memo                                             | 0.20                 |         |        |              |               |               |                  |                |
| Packaging                      | LOCATION : HALL                                  |                      |         |        |              |               |               |                  |                |
| 140                            | QC21- Final Inspection - Work Order Release      | 0.00                 |         |        |              |               |               |                  |                |
| <b>*140*</b>                   |                                                  |                      |         |        |              |               |               |                  |                |
| QC                             | Memo                                             | 2.00                 |         |        |              |               |               |                  |                |
| Quality Control                |                                                  |                      |         |        |              |               |               |                  |                |

119 SE 16-10-13

DAS 21 9-89

OCT 14 2016

DAS 21 9-89

OCT 13 2016

# Picklist Print

Page 1

Monday, August 29, 2016 9:18:00 AM

Work Order ID: 150070

\*150070\*

Parent Item: D2622-120C

\*D2622-120C\*

Parent Item Name: Step Extrusion

Start Date: 8/26/2016

Required Date: 9/15/2016

Start Qty: 120.00

Required Qty: 120.00

## Comments:

| Component Item ID/<br>Item Name           | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|-------------------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| D2622-120CP<br>*D2622-120CP*<br>Extrusion |                        | Purchased     | No          |                     |                  | 110             | Each               | 0.0000         | 1<br>**     | 120          |               |                |        |

119x SP/6-10-3





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Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO33497**

Purchase Order Date 8/31/2016 11:03:04 AM

PO Print Date 9/30/2016

Page Number 1 of 3

**Order From :**

VC-BON001

SIGNATURE ALUMINUM CANADA INC.  
C/O/ T10322C  
P.O. BOX 4488, STN A  
TORONTO, ON M5W 4H1  
CA

**Ship To :** DART AEROSPACE LTD  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**Contact Name**

**Vendor Phone** 905-427-6550

**Ship To Contact**

**Ship To Phone**

**Ship Via:** Yours ppd

**Ship Acct:**

**Buyer**

Chantal Lavoie

**Customer POID**

**Customer Tax #** 10127-2607

**Terms** Net 30

**Currency** CAD

**FOB** Destination-Collect

| Line Nbr | Reference<br>Vendor Part Number<br>Line Comments<br>Delivery Comments | Description/<br>Mfg ID | Req Date/<br>Taxable<br>Promise Date | CD | Req Qty/<br>Unit of<br>Measure | PO Unit Price | Extended<br>Price |
|----------|-----------------------------------------------------------------------|------------------------|--------------------------------------|----|--------------------------------|---------------|-------------------|
|----------|-----------------------------------------------------------------------|------------------------|--------------------------------------|----|--------------------------------|---------------|-------------------|

|   |              |                        |                               |    |               |         |            |
|---|--------------|------------------------|-------------------------------|----|---------------|---------|------------|
| 1 | D2600-3-130P | Extrusion Round 3" 350 | 9/30/2016<br>Yes<br>9/30/2016 | FN | 60.00<br>Each | \$52.95 | \$3,176.90 |
|---|--------------|------------------------|-------------------------------|----|---------------|---------|------------|

EXTRUDE AS PER DWG D2600-3-130 REV. E  
B150069  
DIE # DDA-897122  
LENGHT 130"

EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF TUBE  
MATERIAL MUST BE SMOOTH AND FREE FROM DEFECT SCRATCHES,NICKS,DENT

**Line Total:** \$3,176.98

|   |             |           |                               |  |                |         |            |
|---|-------------|-----------|-------------------------------|--|----------------|---------|------------|
| 2 | D2622-120CP | Extrusion | 9/30/2016<br>Yes<br>9/30/2016 |  | 120.00<br>Each | \$28.70 | \$3,443.75 |
|---|-------------|-----------|-------------------------------|--|----------------|---------|------------|

EXTRUDE AS PER DWG D2622 REV. C  
B150070  
DIE # 897123

EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF TUBE  
MATERIAL MUST BE SMOOTH AND FREE FROM DEFECT SCRATCHES,NICKS,DENTS

*recu 119.x.*

*Sp16 103*

**Note:**

9/30/2016





1850 Clements Road, Pickering Ontario, Canada L1W 3R8 INVOICING AND COMPANY LOCATION

Phone: (866) 587-5780 Fax: (905) 427-2207

Visit us at [www.signaturealum.com](http://www.signaturealum.com)

PACKING LIST

ACCT# 46024

SIGNATURE ALUMINUM CANADA

1850 CLEMENTS ROAD  
PICKERING ON L1W 3R8PACKING LIST DATE / DATE DU  
09-29-16PACKING LIST NUMBER / N° DE  
028337SALES ORDER NUMBER / N° DE COM  
124894

SHIP TO / EXPÉDIÉ À

DART AEROSPACE LTD.  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
CANADA

PHONE: 613-632-5200

SOLD TO / VENDUE À

DART AEROSPACE LTD.  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
CANADA

PHONE: 613-632-5200

TERMS / FREIGHT

PP

REFER TO  
THESE NUMBERS ON  
ALL CORRESPONDANCEREFEREZ-VOUS A CES  
NUMEROUS POUR TOUTE  
CORRESPONDANCE

| LOCATION         | TRAILER NUMBER /<br>REMORQUE Nombre | SALESMAN /<br>VENDEUR                        | CREDIT REP / REP DU CRÉDIT | SALES REP / REP. DES<br>VFNTES               |
|------------------|-------------------------------------|----------------------------------------------|----------------------------|----------------------------------------------|
| PIC              | 223001                              | 042                                          |                            | R. BLAIS                                     |
| JOB /<br>FICHIER |                                     | FIELD SALES REP / REP<br>REGIONAL DES VENTES |                            | CUST SERVICE REP / REP.<br>SERVICE CLIENTELE |
| MCGILLION        |                                     | G.ATTENBOROU                                 |                            | M2A                                          |

| CUSTOMER ID / ID DU<br>CLIENT | ORDER DATE / DE LA<br>COM | CUSTOMER PO NUMBER / CLIENT PO Nombre | BILL OF LADING NUMBER / NO. DE CONNAISSEMENT |  | CARRIER / TRANSPORTEUR | SALES REP / REP. DES<br>VFNTES |  |
|-------------------------------|---------------------------|---------------------------------------|----------------------------------------------|--|------------------------|--------------------------------|--|
| 46024                         | 08/31/16                  | PO33497                               | 028337                                       |  | MCGILLION              | G.ATTENBOROU                   |  |

| ITEM<br>NO. /<br>NUMÉRO | ORIGINAL ORDER<br>QUANTITY /<br>Quantité d'ordre ORIGINAL | UNIT /<br>UNITÉ | PREVIOUS<br>SHIPPED QUANTITY /<br>PRÉCÉDENT<br>Quantité livrée | MFG. PART NUMBER /<br>MFG. PARTIE NUMÉRO | ALLOY & TEMPER /<br>ALLIAGE & TEMPER | FINISH DESCRIPTION / DESCRIPTION DE FINITION | NBR OF<br>PKGS /<br>NBR DE<br>PKGS | GROSS LBS /<br>LIVRES BRUT | NET QUANTITY<br>/<br>QUANTITÉ<br>NETTE | UNIT /<br>UNITÉ | QUANTITY<br>DUE /<br>Quantité en<br>raison |
|-------------------------|-----------------------------------------------------------|-----------------|----------------------------------------------------------------|------------------------------------------|--------------------------------------|----------------------------------------------|------------------------------------|----------------------------|----------------------------------------|-----------------|--------------------------------------------|
| 002                     | 1,094                                                     | LB              |                                                                | DAA-897123-2                             | 6061 T6                              |                                              | 3                                  | 1,177                      | 1,093                                  | LB              |                                            |
|                         | 496                                                       | KG              |                                                                | D2622-120CP                              | 120.0000 IN                          |                                              |                                    | 534                        | 496                                    | KG              |                                            |
|                         | 120                                                       | PC              |                                                                |                                          | Cut(+): 0.1180 Cut(-): 0.0000        | Min: -10 % Max: 10 %                         |                                    |                            | 119                                    | PC              |                                            |
|                         |                                                           |                 |                                                                |                                          |                                      | 871037 / 333831                              | 1                                  | 207                        | 185                                    |                 | 21 PC                                      |
|                         |                                                           |                 |                                                                |                                          |                                      | 871037 / 333832                              | 1                                  | 485                        | 454                                    |                 | 49 PC                                      |
|                         |                                                           |                 |                                                                |                                          |                                      | 871037 / 333833                              | 1                                  | 485                        | 454                                    |                 | 49 PC                                      |

Sp/6-10-3

Transportation/Traffic damages and/or shortage claims are to be noted on the delivery copy of sellers shipping packing lists and signed and dated below

by customers authorized representatives.

No return materials will be accepted for credit without permission. The articles and/or services covered by this shipping packing list were produced in accordance with the fair labor standards set of 1939 as amended. Orders accepted subject to the terms and conditions stated on the reverse side.

Page 2

|        |  |           |  |
|--------|--|-----------|--|
|        |  | Continued |  |
| TOTALS |  |           |  |

CUSTOMER ACKNOWLEDGEMENT OF GOODS DELIVERED AND CONDITION

DATE OF DELIVERY

DRIVER

**SIGNATURE ALUMINUM CANADA**1850 CLEMENTS RD  
PICKERING, ON L1W 3R8**CERTIFICATE OF COMPLIANCE**

| Cert Date  | Cert No. | Sales Order | Page     |
|------------|----------|-------------|----------|
| 09/29/2016 | 5401236  | 124894      | 1        |
| Cust PO    | B/L No   | Lot         | Date     |
| PO33497    | 028337   | 871037      | 09/29/16 |

| Sold To                                                                               | Ship To                                                                               |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 46024<br>DART AEROSPACE LTD.<br>1270 ABERDEEN ST.<br>HAWKESBURY, ON K6A 1K7<br>CANADA | 46024<br>DART AEROSPACE LTD.<br>1270 ABERDEEN ST.<br>HAWKESBURY, ON K6A 1K7<br>CANADA |

| Item No                       | Part No      | Item Description  | Cust Part   |
|-------------------------------|--------------|-------------------|-------------|
| 002                           | DAA-897123-2 | 10FT MILL 6061 T6 | D2622-120CP |
| Gross Weight                  | 1,177 LBS    |                   |             |
| Net Qty                       | 1,093 LBS    | 119 PCS           | 3 PKGS      |
| Specification                 | Die Desc     |                   |             |
| AMS-QQ-A-200/8 & ASTM B221-08 |              |                   |             |

## Mechanical Tests:

| Tensile      | Yield      |              |              |     |
|--------------|------------|--------------|--------------|-----|
| MPA / KSI    | MPA / KSI  | % Elongation | Conductivity | HRE |
| 294.5 / 42.7 | 262.1 38.0 | 13.2         | N/A          | 90  |

## Chemical Analysis:

| Si   | Fe   | Cu   | Mn   | Mg   | Cr   | Zn   | Ti   | V    | Zr   |
|------|------|------|------|------|------|------|------|------|------|
| 0.63 | 0.32 | 0.23 | 0.05 | 0.91 | 0.07 | 0.05 | 0.02 | 0.01 | 0.00 |

*This Material is Made in Canada**This Material is RoHS Compliant*

This will certify that the material described herein has been inspected and tested in accordance with Signature Aluminum Canada's standard sampling and testing procedures or in accordance with the requirements of any specification forming a part of the material description to the extent indicated herein. Data of chemical composition for the material and test results from samples representative of the material are set forth above hereof or in any attachments hereto. This information shows that the material meets the applicable requirements. Inspection and test records are maintained on file. This certificate shall be deemed apart of and subject to the terms and conditions of warranty set forth on the reverse side of our order acknowledgement form. No other warranties are applicable.

S. Mazzotta  
Director of Quality  
Signature Aluminum Canada Inc

ISO 9001/TS16949 Registered Company

Visit us at [www.signaturealum.com](http://www.signaturealum.com)



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: D2622-170  
DATE: 2016/10/05

PO / BATCH NO.: PO 33497/150070

MATERIAL CERT REC'D: yes  
QUANTITY RECEIVED: 119  
QUANTITY INSPECTED: \_\_\_\_\_  
QUANTITY REJECTED: \_\_\_\_\_

THICKNESS ORDERED: See inspection sheet  
THICKNESS RECEIVED: \_\_\_\_\_  
SHEET SIZE ORDERED: N/A  
SHEET SIZE RECEIVED: N/A

| DESCRIPTION                                        | NCR<br>(Check<br>Y/N)               |                                     | COMMENTS                       |
|----------------------------------------------------|-------------------------------------|-------------------------------------|--------------------------------|
| SURFACE DAMAGE                                     | Y                                   | N                                   |                                |
| CORRECT FINISH                                     | <input checked="" type="checkbox"/> | N                                   |                                |
| CORROSION                                          | Y                                   | <input checked="" type="checkbox"/> |                                |
| CORRECT GRAIN DIRECTION                            | <input checked="" type="checkbox"/> | N                                   |                                |
| CORRECT MATERIAL                                   | <input checked="" type="checkbox"/> | N                                   | AMS-QA-A-280/G                 |
| CORRECT THICKNESS                                  | <input checked="" type="checkbox"/> | N                                   | See inspection sheet           |
| PHOTO REQUIRED                                     | Y                                   | <input checked="" type="checkbox"/> |                                |
| CORRECT MATERIAL                                   | <input checked="" type="checkbox"/> | N                                   | 6061 T6                        |
| CORRECT REF # TO LINK CERT                         | <input checked="" type="checkbox"/> | N                                   | PO 33497                       |
| CORRECT MATERIAL IDENTIFICATION                    | Y                                   | N                                   |                                |
| CORRECT M# ON THE MATERIAL                         | Y                                   | N                                   |                                |
| DOES THIS MATERIAL REQUIRE<br>ENGINEERING SIGN OFF | Y                                   | <input checked="" type="checkbox"/> |                                |
| DOES THIS REQUIRE AN<br>EXTRUSION REPORT           | <input checked="" type="checkbox"/> | N                                   | SEE ATTACHED inspection Report |

| CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.<br>RECORD RESULTS BELOW |     |     |       |       |      |
|------------------------------------------------------------------------------------|-----|-----|-------|-------|------|
| TYPE OF MATERIAL                                                                   | HRC | HRB | DUR A | DUR D | 1/10 |
| SIZE OF TEST SAMPLE                                                                |     |     |       |       |      |
| HARDNESS / DUROMETER READING                                                       |     |     |       |       |      |

testers located in the Quality Office

|                         |                      |                                   |  |
|-------------------------|----------------------|-----------------------------------|--|
| QC 18 INSPECTION        |                      | ENGINEERING SIGNOFF (if required) |  |
| INSPECTED BY: <u>48</u> | SIGNED OFF BY: _____ |                                   |  |
| DATE: <u>16/10/05</u>   | DATE: _____          |                                   |  |

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



# **MATERIAL RECEIPT INSPECTION FORM**

## **INSTRUCTIONS FOR INSPECTING BAR, TUBING, ROUND, & SHEET STOCK**

- 1- VERIFY STOCK TO DART PURCHASE ORDER
- 2- MEASURE ALL DIMENSIONS FOR EACH PURCHASED STOCK
  - a. WIDTH, THICKNESS, DIAMETER, WALL THICKNESS & LENGTH
- 3- VERIFY CONDITION OF MATERIAL i.e. DAMAGED, CORRODED, etc.
- 4- VERIFY THAT SUPPLIER HAS A NUMBER (HEAT #) ON ITS RECEIVING REPORT TO LINK TO MATERIAL CERTS
- 5- VERIFY MATERIAL CERTS ARE CORRECT TO THE DART PO INSTRUCTIONS
- 6- REMOVE / CUT A PIECE OF MATERIAL FOR SAMPLE HARDNESS TESTING

## **INSTRUCTIONS FOR INSPECTING SKIDTUBE & STEP EXTRUSION**

- 1- VERIFY TO DART SUPPLIED DRAWING
- 2- SAMPLE INSPECT MATERIAL IN BUNDLE TO ENSURE MATERIAL CAN BE RECEIVED INTO DART
- 3- USING PORTABLE HARDNESS TESTER VERIFY HARDNESS OF THE MATERIAL TO THE DRAWING
- 4- VERIFY THAT MATERIAL CERTS MATCH TO WHATS CALLED UP ON THE DART DRAWING

### **AFTER MATERIAL PASSES INSPECTION**

- 5- HAVE DART EMPLOYEES START STOCKING MATERIAL BUT REQUEST MIN **20pcs** FOR FULL INSPECTION
- 6- INSPECT ALL DIMS AS PER DRAWING REQUIREMENTS

## **INSTRUCTIONS FOR INSPECTING CROSS TUBE MATERIAL**

- 1- VERIFY MATERIAL CERTS MATCH THE REQUIREMENTS ON THE DART DRAWINGS
- 2- INSPECT MIN. HALF THE BATCH OF EXTRUSION RECEIVED INTO DART
- 3- INSPECT MATERIAL AS PER THE EXTRUSION REPORT
  - a. WALL THICKNESS USING ULTRA-SONIC IN 4 LOCATIONS
  - b. OUTSIDE DIAMETER HIGHEST/LOWEST BOTH ENDS
  - c. INSIDE DIAMETER HIGHEST/LOWEST BOTH ENDS
  - d. STRAIGHTNESS @ CENTER OVER 12" SPAN
  - e. WALL THICKNESS USING TUBE MICROMETER HIGHEST/LOWEST BOTH ENDS
- 4- IDENTIFY EACH TUBE IN SEQUENCE OF INSPECTING (TUBE 1, TUBE2.....) AND W/O# AND PO#
- 5- RECORD ALL FINDINGS ON EXTRUSION REPORT

IF ANY QUESTIONS PLEASE SEE QC COORDINATOR BEFORE GOING FURTHER

